

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Application No. 09/832,827

Our Ref.: Q64035  
Art Unit: 2874

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X

5. (Amended) A multi-layer opto-electrical circuit board, comprising at least one layer with an optical waveguide structure having a crossing and a branching, the waveguide structure comprising, in the area of said branching, planar waveguides comprising a waveguide material that is put into troughs formed in a substrate, said waveguide material having a refractive index higher than the material delimiting the troughs, said waveguide structure further comprising, in the area of said crossing, fibers which cross in the area of said crossings, and wherein at least some of said fibers are at least partially inserted into said troughs.